Word Problems Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mixture

**\*\*\*Set up a system of equations for each word problem. Then solve.**

1. Mrs. Kent operates a soybean farm. She buys many supplies in bulk. Often the bulk products need to be custom mixed before Mrs. Kent can use them. To apply herbicide to a large field she must mix a solution of 74% herbicide with a solution of 29% herbicide to form 52 liters of a 61% solution. Round your answers to the nearest percent. How much of the 74% solution must she use?
2. Mr. Mayflower operates a potato farm. He buys many supplies in bulk. Often the bulk products need to be custom mixed before Mr. Mayflower can use them. To apply herbicide to a large field he must mix a solution of 48% herbicide with a solution of 59% herbicide to form 76 liters of a 51% solution. Round your answers to the nearest percent. How much of the 48% solution must he use?
3. Mr. Griggins operates a melon farm. He buys many supplies in bulk. Often the bulk products need to be custom mixed before Mr. Griggins can use them. To apply herbicide to a large field he must mix a solution of 19% herbicide with a solution of 65% herbicide to form 119 liters of a 33% solution. Round your answers to the nearest percent. How much of the 19% solution must he use?
4. Mrs. Johnson operates a soybean farm. She buys many supplies in bulk. Often the bulk products need to be custom mixed before Mrs. Johnson can use them. To apply herbicide to a large field she must mix a solution of 52% herbicide with a solution of 31% herbicide to form 27 liters of a 43% solution. Round your answers to the nearest percent. How much of the 52% solution must she use?
5. Mr. Jones operates a lemon farm. He buys many supplies in bulk. Often the bulk products need to be custom mixed before Mr. Jones can use them. To apply herbicide to a large field he must mix a solution of 17% herbicide with a solution of 62% herbicide to form 101 liters of a 51% solution. Round your answers to the nearest percent. How much of the 62% solution must he use?
6. Mr. Smith operates a wheat farm. He buys many supplies in bulk. Often the bulk products need to be custom mixed before Mr. Smith can use them. To apply herbicide to a large field he must mix a solution of 23% herbicide with a solution of 65% herbicide to form 108 liters of a 34% solution. Round your answers to the nearest percent. How much of the 23% solution must he use?
7. Ms. Sag operates a dairy farm. She buys many supplies in bulk. Often the bulk products need to be custom mixed before Ms. Sag can use them. To apply herbicide to a large field she must mix a solution of 43% herbicide with a solution of 69% herbicide to form 102 liters of a 49% solution. Round your answers to the nearest percent. How much of the 43% solution must she use?
8. Mrs. Huang operates a soybean farm. She buys many supplies in bulk. Often the bulk products need to be custom mixed before Mrs. Huang can use them. To apply herbicide to a large field she must mix a solution of 67% herbicide with a solution of 46% herbicide to form 42 liters of a 55% solution. Round your answers to the nearest percent. How much of the 67% solution must she use?